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What Determines Their Future?

What Determines Their Future?

A child's physical growth and development in the first three years of life will affect their behaviour and even health as adults

AKU/Zaigham Islam

When Naeema begins her day, it is barely 6 am. Her morning consists of a hurried breakfast followed by a brisk walk to the Family Resource Centre in Gwadar where she works. The town, with its deep sea port, clings to the edge of the National Highway connecting the economic powerhouse Karachi with the south-western tip of Balochistan, a province known for the worst health and education indicators in Pakistan and rampant poverty and malnutrition.

Naeema discusses the day's agenda and issues with her colleagues before she and fellow worker Nida prepare for their 'clients' and parenting sessions. Armed only with a weighing scale, a basic toolkit, and handwritten notes from their last meeting, Naeema and Nida will be receiving several families today.

The first to enter are Wasila and her two-year-old son, Azaan. After a round of greetings and the traditional welcoming cups of tea, Azaan's weight and height are measured. Immediately afterwards, the child sits down cross-legged before Naeema, ready to play. Naeema responds by pulling out a tempting collection of coloured cubes for the boy to colour match and pair. Next, Azaan is given a bottle of sweets to open – he can pick any toffee if he is successful. Challenged, Azaan seems to enjoy the play between Naeema and him, oblivious to Nida recording his reactions to every action.

To an uninitiated visitor, it may seem as though Naeema is merely playing with Azaan. But the abilities to identify colours and unscrew bottle caps are some of the primary indicators that Naeema and Nida, community-based workers (CBWs), have been taught to look for to determine if a two-year-old child is growing and developing normally. They also know how to identify whether a certain behaviour (or lack thereof) signals a developmental delay.

These techniques are part of an innovative effort by AKU's Human Development Programme (HDP) to provide a good start to young children in Pakistan, particularly those from poor communities. HDP has adopted an integrated approach to health, nutrition, education and development that is assisting families to better support their children's needs in the critical first three years of their lives. In that very short period,

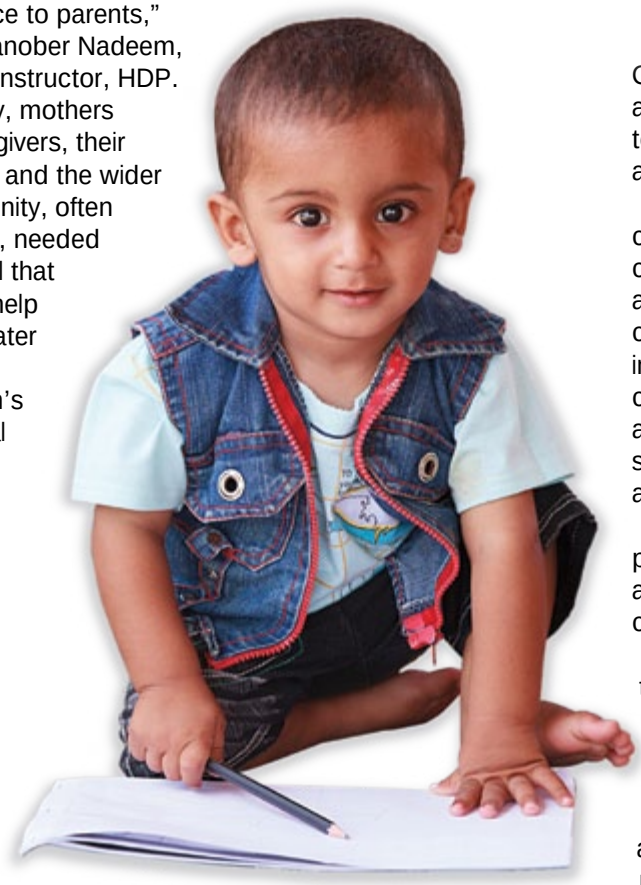
Cover photo: AKU/Zaigham Islam

a child's physical growth and development will have lifelong repercussions, affecting their behaviour, and even health, as adults.

The World Health Organization estimates that every year, more than 200 million children under five years of age fail to reach their full cognitive and social potential. Unfortunately, a disproportionate number of these children live in South Asia and sub-Saharan Africa. Poor development means that they will underachieve in school and may not be productive participants in their own society's growth. Worse, they are likely to repeat the cycle with their own children.

"Under 5s growing up in poor households are at direct risk, not only from malnutrition – which can cause wasting and stunting – and unsafe living conditions," explains Dr Ghazala Rafique, Interim Director, HDP, "but also insufficient learning opportunities and a lack of adequate care." Caregivers often do not have the knowledge or parenting skills to protect children or provide them with a nurturing home environment.

A number of screening assessment tools to identify children at risk already exists, but only for Western settings. What was needed was "a standardised, culturally appropriate tool that would help CBWs to adequately assess young children and provide comprehensive advice and guidance to parents," says Sanober Nadeem, Senior Instructor, HDP. "Equally, mothers or caregivers, their families and the wider community, often illiterate, needed material that would help them cater to their children's physical and emotional needs." Here is where HDP has ventured into new territory. A multidisciplinary team of experts including psychologists, physicians, community health nurses, public health practitioners, epidemiologists, sociologists, and educators were involved in conceptualising, developing and testing an appraisal tool to guide in the early identification and intervention of children at risk of poor development.



AKU/Zaigham Islam

As a team, they identified and verified the things a 'normal' child in a local setting might be expected to say or do at different ages in several 'domains' or areas of development – physical, social/emotional, cognitive, language and general and skilled movement.

HDP has adopted an integrated approach to health, nutrition, education and development that is assisting families to better support their children's needs in the critical first three years of their lives.

Children, who were identified as 'vulnerable' or at risk of a potential developmental delay, could then be referred to the nearest health facility for more in-depth diagnosis and assistance.

The tool also serves as a guide for mothers and caregivers, enabling them to observe and track their children's development. It provides relevant and helpful age-specific advice on how to better care for one's child, including ways in which to communicate with infants, stimulate young children, reduce common childhood injuries and ultimately provide a responsive and nurturing environment. The written descriptions are supplemented by illustrations to clarify the meanings and assist mothers or caregivers who may be illiterate.

Pretesting of the tool was conducted in two peri-urban settlements in Karachi: Qayyumabad and Manzoor Colony, which are different in ethnic composition and socio-economic status.

The Programme then tested the assessment tool in Tando Jam, Sindh and Mastung, Balochistan. Fifty-five young women from the two areas were trained in early childhood development assessment and childcare; between 2005 and 2011, when the programme ended, they enrolled nearly 2,000 families and 4,500 children in a community-based parenting programme. They measured each child's growth and

developmental progress monthly for the first year and quarterly for the next two.

The results were extremely impressive. Mothers, grandmothers, and even fathers became increasingly aware of basic hygiene practices such as handing a clean toy to a child and the adverse effects of using pacifiers. Says one grandfather, “our family members are not literate, but due to this programme they became wise.” Even better, the Programme seemed to encourage a significant breakdown of traditional inter-generational barriers, with caregivers understanding the importance of positive reinforcement – through language and active interaction – to help nurture and protect the child. “We saw change even within the family. Older siblings became second-hand learners of the activities we conducted with their baby brothers and sisters,” explains Nadeem. Likewise, elders became conscious of the hazards of passive smoking and its effects on young children. “We might not be getting a formal education through this programme, but we definitely became aware of our children’s needs,” says Haroon Bashir, the father of a three-year-old boy.

HDP is now working with the Aga Khan Foundation, Pakistan, assisting three local partners in Balochistan to develop a centre-based parenting education model that focuses on children from birth to eight years. The model organises health, nutrition, nurturing and early education activities through a Family Resource Centre and builds on the assessment tool developed earlier.

The Programme is the first to develop a tool that trained community workers can use effectively thereby supporting community-based Early Childhood Development programmes; perhaps most importantly, it is the first to try to ensure that every child, in every community, gets the best start in life.

AKU/Karim Panjwani

Staff from the Rural Community Development Council in Gwadar, the Institute for Development Practices and Studies in Quetta and Taraqee Foundation in Qilla Saifullah are being trained to provide services. Eventually, approximately 1,600 households with 2,900 children in the three areas will be covered.

The Programme represents a first in many ways. It is the first to develop a tool that trained community workers can use effectively in the community, thereby supporting community-based Early Childhood Development programmes. It is the first to introduce culturally appropriate development indicators for mothers and caregivers that can help them provide a nurturing environment for their child. Perhaps most importantly, it is the first to try to ensure that every child, in every community, gets the best start in life.

Meet the New Provost

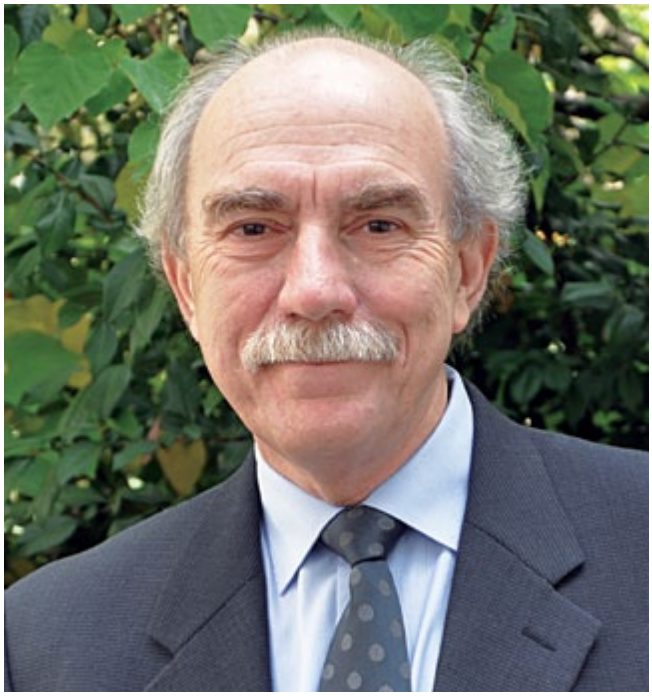
Dr Greg Moran joined Aga Khan University as Provost in September 2011. He brings 35 years of experience at Western University, London, Canada, where he served as Provost and Vice President Academic, Dean of Graduate Studies and Chair of the Department of Psychology, all while maintaining his responsibilities as Professor of Developmental Psychology. Dr Moran studied Psychology at McGill University and has a master's and a doctorate degree in Psychology from Dalhousie University in Nova Scotia, Canada. Dr Moran's extensive research, spanning well over 20 years, has focused on understanding the nature, origins and consequences of the relationship between mothers and their infants.

As Provost, what role do you foresee for yourself in further strengthening AKU's academic partnerships with leading international universities?

As a young university that aspires to the highest standards of education and research, AKU has always drawn heavily upon partnerships with well-established universities in other parts of the world. I plan to continue and expand this practice. For example, our partner universities currently play an essential part in the development of programmes and curricula in our planned Faculties of Arts and Sciences and professional graduate programmes in areas such as media and communications, management and tourism and leisure. We simply could never hope to develop high quality programmes over such a short period of time without this support.

Similarly, in developing our six key areas of research, we are able to draw on expertise existing at, for example, the University of California at San Francisco and the University of Alberta.

Although such collaborations enable us to build capacity of our own in these areas, I need to stress that the benefits are reciprocal. Our partner institutions also grow and develop as a function of their interaction with the AKU community. We are able to offer them opportunities that wouldn't otherwise be available to them.



Dr Greg Moran, Provost, Aga Khan University AKU

... AKU's greatest strengths, now as in the past, are the clarity of its mission and vision and its people.

Given your experience as Provost and Vice President Academic at Western University how do you feel AKU can best attain its full potential as an international university spread across three continents?

That question is at the heart of my role as Provost at AKU and an adequate exploration of it would take far more space than your readers would have the time to devote to it. But let me make a start.

AKU is at a critical turning point in its history. In short, we are committed to expanding dramatically the

number and diversity of academic programmes and the geographic range of communities we serve. I believe we are on a path that will make us a truly unique international university offering a comprehensive range of educational programmes and engaged in first class research. Although it would be foolish to take lightly the challenges ahead, my past experience provides me with much relevant preparation for this task. As a social scientist, I am very familiar with many of the disciplines that we will be adding to AKU in the integrated multi-disciplinary programmes to be featured in the Faculty of Arts and Sciences in East Africa and Pakistan. My years as Dean of Graduate Studies and as Provost at Western University have given me extensive experience with the full range of graduate and undergraduate programmes and with the challenge of overseeing professional graduate programmes of the sort now planned at AKU.

Beyond these, AKU's greatest strengths, now in the past, are the clarity of its mission and vision and its people.

Mother and child health is one of the six key areas of research at AKU. How do you think your research background in mother-child relationships can add to this agenda?

Units across AKU, including the Division of Women and Child Health and the Human Development Programme, have already made remarkable contributions in this area. To date, the focus of most of this work has been the link between the physical needs and diseases of children and their mothers to later health and physical development. The focus of my own research has been the early psychological and social experience of the child in their relationship with their mother and its impact on social, cognitive and emotional development. Modern research has taught us that the physical and psychological processes are not separate. The earliest experiences within the mother-infant relationship can have a profound impact not only on children's psychological function, but also on their later physical health, including their susceptibility to stress and disease.

I plan to enthusiastically support and promote the Institute for Human Development and the Centre of Excellence in Women and Child Health – two exciting new University-wide initiatives in this area – taking advantage of my expertise and international connections in the field. Time allowing, I hope to have some direct engagement myself, but I most certainly will call on my extensive network in the human development field worldwide to support our efforts at AKU.

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Our objectives are ambitious. Our actions must be guided by three principles. First, we must ensure that our financial and human resources are carefully aligned with our strategic objectives. This will require careful planning and difficult choices. We will need to allocate our finite resources differentially to support programmes and activities that are our highest priority and of the highest quality. Second, we must remain a single integrated university.

As we expand, there will be a natural tendency to fragment our operations in different geographic locations. Such Balkanisation will weaken us through operational inefficiencies and missed opportunities for creative synergy. Finally, as we expand and diversify, we must hold true to the commitment to offer only the highest quality academic programmes and research that address the questions and deals with the challenges within our communities.

Can you explain your role at the Campus Alberta Quality Council (CAQC), and how the experience can benefit AKU?

I have been involved in higher education quality assurance organisations for more than 20 years. In addition to serving for the past three years on CAQC, the Council responsible for reviewing all new and existing degree programmes in the Province of Alberta, I also played a lead role in establishing, and later revising, the quality assurance programme for undergraduate and graduate programmes in the Province of Ontario. I both understand the principles and practice of quality assurance and appreciate its importance. I plan to work with the academic community to establish a robust university-wide structure of quality assurance and improvement at AKU.

There are two reasons this objective is critical to our success. First, rigorous periodic self-study, including review by external experts, is essential to the maintenance of the highest quality programmes. Second, particularly because AKU operates in multiple jurisdictions in the developing world, the reputation of our degrees depends on their certification by internationally recognised quality assurance organisations.

Do you have any final thoughts about the expansion of AKU's global reach and the increasing variety of programmes it will offer?

The university has a proud history as an institution focused on health care and education originating in Pakistan. Current plans call for a large expansion in East Africa and for the establishment of Faculties of Arts and Sciences and graduate professional schools. These exciting developments will demand that we collectively work to maintain what I've come to think of as an integrated comprehensive global university. We need to maintain common high standards and the resulting efficiencies and synergies. This vision is unique amongst the world's universities – a vision that will enable us to extend our mission of delivering the highest standard of university education to students in the developing world in their own communities.

Provost Dr Greg Moran pictured with Dean, Medical College, Pakistan, Dr Farhat Abbas – part of the team at the forefront of driving academic excellence at the University. AKU

Through the Looking Glass

As the weak health care structures in the developing world struggle to cope with the increasing incidence of diseases, the telepathology initiative has taken the lead in providing diagnostic support to doctors working in resource-challenged surroundings.

If it is difficult to find a doctor in the developing world, it is almost impossible to find a pathologist. Take the case of Tanzania: with a population of over 46 million people in 2011, the country has roughly 2 physicians per 100,000 people and a mere 15 pathologists. The biggest challenges are limited resources and few opportunities to pursue advanced training and research, which hinder professionals from entering this field.

These challenges exist against a backdrop of increasing incidence of non-communicable diseases, including cancer, diabetes and heart diseases. The World Health Organization estimates that an enormous 70 per cent of newly reported cancers over the next decade and a half will be found in the developing world, highlighting the importance of accurate pathological diagnosis for health and well-being.

The local health care infrastructure in Tanzania and Kenya is not equipped to meet the challenges single-handedly. As a result, the Aga Khan University Hospital in Nairobi, Aga Khan Hospitals (AKH) in Dar es Salaam, Tanzania and Kisumu and Mombasa, Kenya, in partnership with Aga Khan Health Services, has taken the lead in introducing telepathology.

"Telepathology holds great promise as a means of offering diagnostic support, second opinion consultations and ongoing training to pathologists practicing in resource-challenged settings," says Dr Aliyah Sohani, Department of Pathology, Massachusetts General Hospital (MGH) and Harvard Medical School.

In 2008, MGH established a pilot telepathology initiative at AKH in Dar. Only one year later, the programme was expanded to cover the University Hospital in Nairobi – already serving as a referral centre for difficult and challenging cases from the regional Aga Khan Hospitals – and AKHs in Kisumu and Mombasa. Each centre included on-site training for local pathologists, instructing them on how to set-up and maintain the multi-headed microscope, the digital camera and other equipment needed to make the initiative successful.

Proper diagnosis provides sound basis for treatment AKU/Gary Otte

In addition, to eliminate the need for live, interactive web sessions rife with prohibitive costs and connectivity issues, a static imaging system – using a specialist telepathology platform 'iPath', developed by the University of Basel – was put in place. Today, the iPath server is hosted at the University's campus in Karachi, Pakistan.

The results have been extremely encouraging. The static imaging has helped in complete or partial diagnoses of 127 out of 137 cases, all originating from different locations: a success ratio of over 90 per cent with an average 5½-day turnaround time. The majority of cases have come from two centres: Kisumu and Dar es Salaam. Each has sent in over 40 cases, accounting for 66.4 per cent (91/137) of total referrals.

The success of the programme is evident not only through the statistics, but also through the doctors' experiences. "We are really getting good help, especially in dermatology," says Dr Satya Vara Prasad, Resident Pathologist, Department of Pathology, AKH, Kisumu. "Since we don't have enough dermatologists, we are getting help with the treatment also, which is really helpful for the patient." In fact, 29.2 per cent (40/137) of all second opinions have been sought in dermatopathology making it the most referred surgical pathology sub-speciality. Sohani says that the programme, with its strong educational focus, "has benefited referring and consulting pathologists alike, in terms of building confidence and achieving a greater sense of awareness of unusual entities" and has spawned collaborative research projects between US and East Africa-based pathologists. Pathologists from Kisumu and Boston are now working together on a study of Kaposi's sarcoma, a type of soft tissue cancer that is rare in the US, but common in sub-Saharan Africa.

As the programme forges ahead, some limitations still persist. There is limited available technology and a restricted number of pathologists with relevant experience and know-how to post the static images. Despite these challenges, telepathology in East Africa is a step in the right direction. It represents a cost-effective and reliable model to support the diagnostic work and academic interests of pathologists practicing in the developing world and for patients to have access to accurate pathological diagnoses as a critical part of their care.

We would like to thank Dr Aliyah Sohani for her help in putting together this article.

Pathologists from Kisumu and Boston are now working together on a study of Kaposi's sarcoma, a type of soft tissue cancer that is rare in the US, but common in sub-Saharan Africa.

AKU/Gary Otte

On the Road to Preventing Injuries

In the first half of 2012, over 16,821 people were injured or killed in traffic accidents in Karachi, Pakistan, alone, according to the city's Road Traffic Injury Research and Prevention Centre.

This number represents just a small fraction of the five million people who die from commonplace injuries each year – road crashes, drowning, burns, violence or falls – with an estimated 1.3 million dying from road traffic injuries alone. Worse, more than 90 per cent of injury-related deaths occur in the developing world.

"We know that injuries are a predictable and preventable global health problem," says Dr Adnan Hyder, an alumnus of AKU (MBBS '90), Director of the Johns Hopkins International Injury Research Unit (JH-IIRU) and Professor in the Department of International Health, Johns Hopkins Bloomberg School of Public Health in the United States, who has strongly advocated for global health research to be focused on the prevention of injuries. "This is a serious global epidemic and, yet, it gets a fraction of the attention paid to other preventable diseases."

His interest in public health and awareness of social inequalities was sparked as a medical student at AKU – sent to work in the University's community clinics in the urban slums of Karachi, he found the health care to be "horrifically inadequate."

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"We understand how to prevent diseases, but injuries? Twenty years ago, little was known about the epidemiology of injuries in developing countries."

His first job out of the AKU Medical College with Aga Khan Health Services in Gilgit, Northern Pakistan, as manager for a primary health care programme, reinforced his earlier impressions. There, because of the terrible state of the roads – narrow mountain roads with no guardrails – he witnessed severe injuries that were so traumatic they were beyond help; not even getting these patients to a better medical facility would have been useful. That's when he became interested in ways to go about preventing these injuries in the first place. "We understand how to prevent diseases, but injuries? Twenty years ago, little was known about the epidemiology of injuries in developing countries. The science behind it was missing, and that's what I became interested in. And to me, injury prevention felt like a natural progression of my interest in social justice and inequalities in health," says Hyder.

It is a concern that has led to wide ranging research in injuries, from assessing helmet use practices in Cambodia, to traffic law enforcement in Uganda, to child drowning prevention interventions in Bangladesh. Not content with local interventions, Hyder has been closely involved with the World Health Organization's Department of Violence and Injury Prevention for more than a dozen years, seeking change at the global level. He has co-edited the World Reports on road traffic injuries and child injuries; he has co-written the guidelines for injury surveys; and co-authored assessments of the social and economic costs of violence.

One of his primary areas of interest remains road safety. In 2010, his unit at Johns Hopkins joined a consortium of six partners to form the Road Safety in 10 Countries Project (RS-10), a five-year effort focused on reducing deaths and serious injuries in low- and middle-income countries (LMICs) by providing demonstrable evidence for stronger road safety interventions around the world. As the name

suggests, RS-10 targets 10 countries that account for almost half of all traffic deaths globally: Brazil, Cambodia, China, Egypt, India, Kenya, Mexico, Russia, Turkey and Vietnam.

"As a small part of this project, we are also evaluating emergency medical services. It's interesting – emergency medical care has never been the focus of health care in developing countries, and yet, because of the high injury rates (which are double in LMICs than in developed countries) and low injury control activities, that's exactly where health services should be concentrated. But the reality is that emergency services in LMICs are haphazard, if they exist at all. If there is a communications system – like the '911' number we use in the US for emergencies – it's often unreliable or lacks the capability to organise the care of an injured person. Ambulance services are often unreliable as well – again, if they exist at all – and road crash victims are transported to nearby hospitals by untrained police or passing truck or taxi drivers," Hyder says. The evidence gathered will help develop solutions that have proven effective in saving lives and will serve as a foundation for not only future work but for road safety research yet to come.

Take the example of Kenya, where RS-10 researchers are working to implement, monitor and evaluate trauma care efforts. Hyder is working with his colleague Dr Kent Stevens and in-country organisations to provide pre-hospital and hospital training for physicians, nurses and staff, as well as evaluating the current emergency system to develop possible upgrades and/or locally relevant models with the Ministry of Health.

His other interests are focused on children's injuries, particularly in South Asia. In Matlab, Bangladesh, Hyder is currently working on interventions to prevent children from drowning. Investigating the causes of children drowning, researchers have found that local beliefs included 'evil spirits' believed to lure young children to water or to bewitch mothers to forget about their children, or even a water goddess known to prey on small children. Working with his colleagues, Hyder has explored potentially inexpensive interventions, such as playpens, to prevent young children from wandering off while their mothers are cooking or engaged in household chores. They found that when introduced to households through community-based programmes, barrier-based interventions are acceptable to parents. He is now conducting a larger study to show the effectiveness of this intervention.

In Pakistan, Hyder is working on unintentional childhood injuries in the home with his colleague Dr Aruna Chandran and researchers from AKU's Department of Emergency Medicine including Dr Junaid Razzak (MBBS '94). Initial data was gathered by interviewing caretakers of children under 12-years-of-age who came to emergency departments in one of the four major tertiary care hospitals of Karachi with an unintentional injury. Surprisingly, the majority of these injuries occur at home, with falls, dog bites and burns being the most common.

Hyder explains that it is difficult for health professionals to share home injury prevention information with households, since there is a dearth of printed tools available in South Asia. So, to help address this issue, three tools were developed: an injury hazard assessment tool, an educational pamphlet that highlights strategies for reducing home injury hazard and an in-home safety tutorial programme, which would be delivered by a community health worker. Currently, the work is in the preliminary stages,

Dr Hyder has strongly advocated for global health research on the prevention of injuries. Chris Hartlove

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with a pilot study to address the implementation and acceptability of this home injury prevention information.

"My work has been focused on learning lessons from work done in high income countries and not repeating their mistakes, and exploring the transferability of interventions to LMICs. This is a collaborative effort with colleagues from all countries – high, middle and low," says Hyder.

"My future goal is, of course, to help prevent injuries in the developing world by implementing known and effective interventions – wearing a seatbelt while in an automobile, for example, is proven to reduce the risk of fatal injury by nearly 60 per cent."

"My work has focused on learning lessons from work done in high income countries and not repeating their mistakes, and exploring the transferability of interventions to low- and middle-income countries."

"Recently, I was asked what kind of advice I could offer to those working in public health regarding injury prevention. I said that it was vitally important to sensitise those in public health to injury prevention. By that I mean it's important that we inform ourselves of the science of injury prevention, and that we, as public health professionals, approach the prevention of injuries the same way we approach the prevention of malaria or tuberculosis – with the same scientific rigor and high standards. The better trained we are as researchers and public health professionals, the higher our chance of discovering good interventions, and the more lives we can save."

Forward with Boundless Hopes and Dreams

"Recently, I received an email suggesting that everything is becoming less and less. You know keyless cars, fireless cookers and wireless connections … But class of 2011, our hopes, aspirations and dreams are boundless!

Theodore Roosevelt, the 26th and youngest president of the United States once said, "In any moment of decision, the best thing you can do is the right thing, the next best thing is the wrong thing, and the worst thing you can do is nothing." Class of 2011, our choosing to come and pursue further education at AKU was the best decision, and today is a landmark day not just for us, the graduating students, but the faculty, our families and the entire AKU fraternity. This is a day we tell ourselves 'those 600 or so days were not days spent in vain or pain.'

Class of 2011, we have much to be thankful for. On April 23, 2009, I received a call from Hesbon Nyagoa telling me to report to Aga Khan Primary School, Kisumu, for an interview. On my way there, I saw a sticker on a taxi saying, 'If you think education is expensive, try ignorance!' Here at AKU, we received a great education, thanks to our team of dedicated faculty, administrators, the entire university and our individual East African governments.

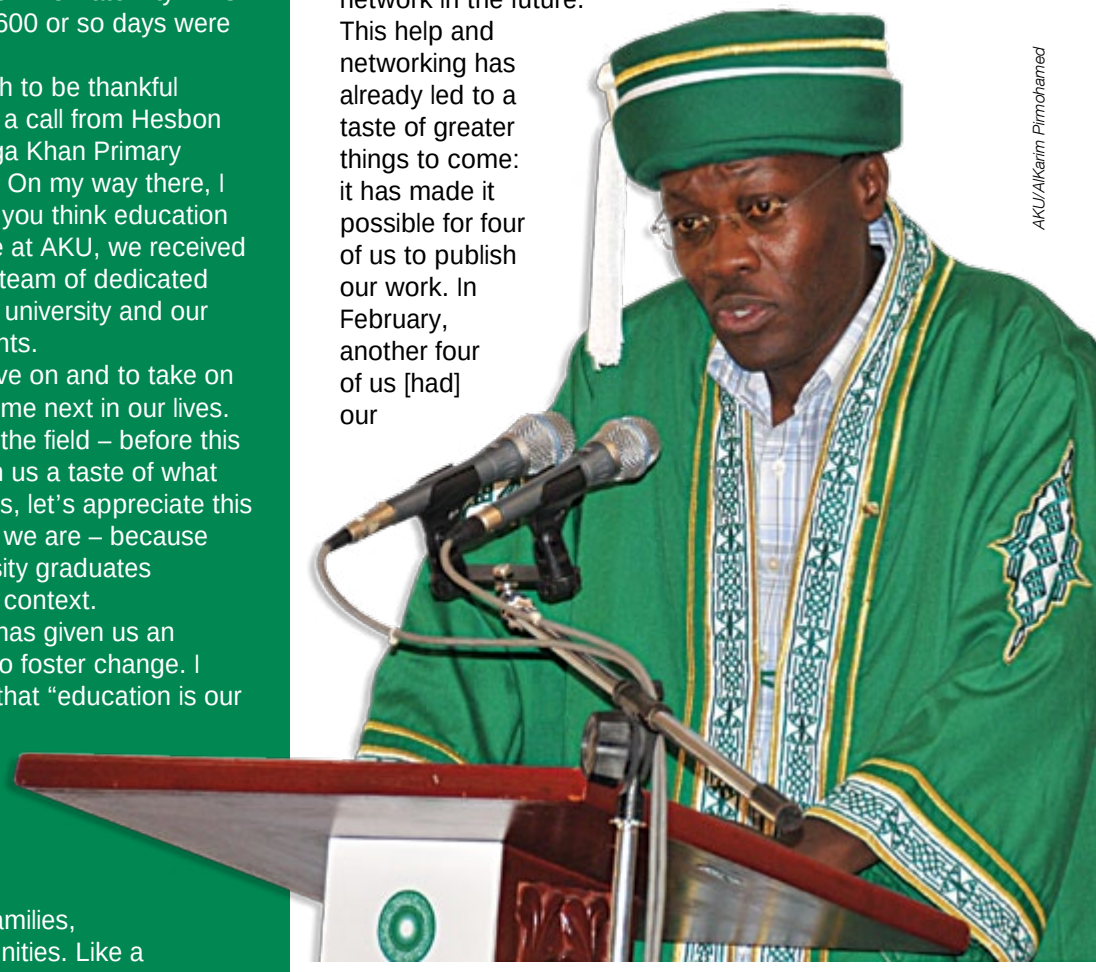
We are now prepared to move on and to take on whatever challenges that may come next in our lives. The six months we have been in the field – before this convocation – have already given us a taste of what the future holds. Fellow graduates, let's appreciate this great gift – being as prepared as we are – because that cannot be said for all university graduates especially within the East African context.

It is my conviction that AKU has given us an education that has prepared us to foster change. I believe in Malcolm X's assertion that "education is our passport to the future, for tomorrow belongs to the people who prepare for it today." AKU has prepared us for the future. AKU has prepared us to be the face of change in our families, in our schools and in our communities. Like a well-oiled machine, we will overcome any hurdle that may be thrown our way as we pursue that dream, the dream of [being] effective change agents and leaders in our societies. I still have the tab to the key to my room in the Mikocheni Hostel with Barack Obama's picture and the words 'Change is Coming.' Class of 2011, with the parchments we have acquired today, change has come to us, to our families and to our communities!

There is no doubt that the two years we spent here presented us with a lot of challenges. But there was always so much joy and hope that we had our families telling us, "Come on mum, come on dad, come on brother, you can do it!" Give a mighty thank you to your partner, mother, father or children, whether they are here today or not, for we would not be here today without them.

Class of 2011, I am thankful to each one of you. The friendships that we have built here at AKU will no doubt last a lifetime. They will certainly go beyond being just alumni of the same university. I remember during the re-entry into teaching, Christine would whisper to me, "Benn, what was crafted in AKU shall remain in AKU," but I want to say that what was crafted in AKU shall pervade from the beaches of the Indian Ocean here in Dar es Salaam to Kisumu on the shores of Lake Victoria, to the city square of Kampala, to my local primary school in Mayoni, Kakamega County, Kenya.

In the same way we collaborated and helped each other to succeed in our studies, I hope we will continue to be there for each other, to support each other and to network in the future. This help and networking has already led to a taste of greater things to come: it has made it possible for four of us to publish our work. In February, another four of us [had] our



AKU/AlKarim Pirmohamed

Endless dreams and possibilities AKU/Gary Otte

first baptism by academic fire when we presented our papers at Kenyatta University's International Conference on Educational Reforms and Innovation in Enhancing Quality and Equity.

Often on graduation day, graduands look far for heroes. I see heroes right here amongst us. Each one of us, right here, has the potential to make an inspiring contribution to others by being true to our values and committing ourselves to lofty goals. As a teacher, I think my job description can be summarised thus: inspire for the future. Ever since I came to AKU, I have drawn my inspiration from all those mothers who have had to leave their families in pursuit of education and knowledge. Bravo to all the mothers in the Class of 2011. I might never have said it to you in person, but I want to say it now: my standing here today is largely indebted to you! You have been tenacious and have had great character. Whenever the going got tough, I looked up to you ladies and it gave me the impetus I needed to carry on.

At the beginning of 2009 when I came back to Kenya after a 10-year stay in the Seychelles, I felt that I was too old to go back to class and learn. I had been teaching 12-and 13-year-olds and, trust me, they had made me feel old. However, when I met all of you my whole perspective about life-long learning changed. Having you as classmates made me realise that I had made the right choice and that I was in the right company. AKU has made me rediscover what I had left dormant for close to 12 years, and I hope, comrades, it has been the same for you.

May I conclude by quoting Pope John XXIII, "Consult, not your fears but your hopes and your dreams. Think not about your frustrations, but about your unfulfilled potential. Concern yourself not with what you tried and failed in, but with what it is still possible for you to do."

Ladies and gentlemen, I have not stood here as the 2011 valedictorian all by myself. I was moulded by the AKU environment, by all of you my peers. It was all of you who truly made me the person I am today. It was all of you who were my competition, yet my backbone. In that way, Class of 2011, we are all valedictorians. I say farewell to this institution and those who maintain it, but I hope this farewell is actually more of a 'see you later' when we are all working together to institute the pedagogic revolution the education system in East Africa so badly needs.

Thank you.

Benn Arunga, Valedictorian
IED East Africa, Class of 2011

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A Beacon of Hope

"She kept coughing and at times it looked like she could not breathe," recalls Mohammad Amin, a labourer, of his two-and-a-half-year-old daughter Khushi. "She was very warm and feverish and her lips were strangely coloured. We had already spent two days at the local public hospital in Mazar-e-Sharif where she was given strong medicines, but when they felt that they could not help her, they sent us here."

"Here" was the French Medical Institute for Children (FMIC) in Kabul, a not-for-profit hospital run by the Aga Khan University in partnership with the Governments of France and Afghanistan and the French NGO, La Chaine de l'Espoir. It is at a five hour journey from Mazar-e-Sharif, Afghanistan's fourth largest city, in the northern province of Balkh.

"Khushi was in a terrible condition when we first received her," said Dr Wahid Sabet, the paediatrician who treated her. "She was pale, weak and had a very high fever. But we were most concerned about her breathing – she was really labouring to breathe – and we suspected a staph infection and began treatment immediately." This is not unusual in a country where half of all Afghan children die before they reach the age of five, one-third die soon after birth, and over half within the first year. A chest x-ray confirmed the doctor's worst fear: an infection in both her lungs with only a small area helping her breathe. She had arrived just in time.

FMIC/Dr Wahid Sabet

Khushi prior to her discharge from FMIC

Khushi is just one of the nearly 200,000 patients from all 34 provinces of Afghanistan who have sought and benefitted from treatment at the French Medical Insitute for Children.

Unable to breathe independently, Khushi was hooked to a ventilator, given strong antibiotics, and provided with supportive care, including chest physiotherapy. A couple of days later, the staph infection was confirmed: staphylococcus aureus, a bacterium usually found on the skin, which can cause a serious and often fatal infection once it enters the body. Khushi's condition, staph pneumonia, was rare; on average FMIC only receives six cases a year.

The next five weeks were crucial to Khushi's recovery. Through a joint effort by a medical team of doctors, nurses and administrative staff, Khushi was slowly nursed back to health. As time passed, her staph infection was regulated, her fever dropped, her appetite returned and her general condition improved. She was eventually able to feed herself and, finally, after weeks of struggle, she was able to walk by herself. Her chest x-ray, usually the last to return to normal, showed significant improvement.

Thirty-five days after having been admitted, Khushi was finally discharged from FMIC. Relieved and thankful that she survived against the odds, Khushi's father now aspires to send her to school. His dream is that his daughter will one day become a doctor so that she too can serve those in need, especially children.

As Khushi and her father prepared for her discharge, yet another child was entering FMIC. This time, it was a 14-year-old boy named Zubair.

Zubair's journey had been extremely long. One evening, he was sitting outside his home in the Tagab

FMIC offers hope *Tina Hager, Arabian Eye, UAE*

district with his four cousins when he saw two low-flying helicopters approach. Troubled by the sight of the helicopters, Zubair immediately moved away. The next thing he knew, he was laying at the bottom of an irrigation ditch, seriously wounded. Two of his cousins died instantly; fortunately the villagers rushed the survivors, including Zubair, to the French hospital in Tagab. Zubair was then airlifted to the hospital at the Bagram Air Base where he discovered the true nature of his injuries: he had to have both of his legs amputated, internal sutures inserted to hold his abdomen together and 52 metal staples in order to close the wound.

Unfortunately for Zubair, the nightmare had just begun. Zubair and his uncle, Nasir, were forced to go from hospital to hospital, from a rehabilitation centre in Kabul to Kapisa's provincial hospital, to a medical centre in Panjshir Valley for more help. Each of these places turned them away; these centres simply did not possess the capacity or the tools to help Zubair. His chest and abdominal wounds were slowly becoming life threatening.

But then, Zubair's luck changed. A journalist from *The New York Times* who had interviewed the boy intervened, organising his transfer to FMIC.

Dr Abdul Jalil Wardak, Chief of Paediatric Surgery, received Zubair and was shocked by his condition. "Both legs were amputated and he had a big wound over his abdomen, due to the previous lapratomy, an abdominal incision that had enabled the doctors to repair his slashed spleen, colon and kidney. He had a high fever and looked pale and weak. We decided he had to be reopened again."

Luckily, FMIC had the doctors and state-of-the-art equipment necessary to successfully handle Zubair's difficult case. During the complex three-hour surgery, the doctors had to reopen the wound and remove the internal sutures and metal staples in Zubair's abdomen. They re-sutured and dressed his open wounds and gave him the necessary antibiotics. Finally, after a few days, he was able to sit up comfortably. He remained at the hospital until he had fully recovered.

Neither family could afford the cost of treatment at FMIC. But their children were treated irrespective of the cost, or their families' ability to pay, thanks to FMIC's generous Patient Welfare Programme. The Programme covered both their costs – Zubair's in full, and the majority of Khushi's treatment. Khushi and Zubair are just two of the nearly 200,000 patients (both in-and out-patients) from all 34 provinces of Afghanistan who have sought and benefitted from treatment at FMIC. Since it began providing services in 2006, FMIC has provided access to care worth US$ 15 million.

And while Khushi and Zubair highlight the kinds of challenges that the team of doctors at FMIC face each day, these successes also underscore the critical need for strengthening the health care system in Afghanistan. To that end, plans are already underway to expand facilities at FMIC to include a maternal and child care centre to provide even greater coverage to vulnerable mothers and populations in Afghanistan so that success stories like those of Khushi and Zubair become the norm, rather than the exception that make news headlines.

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Telephone: +92 21 3493 0051 | Fax: +92 21 3493 4294 | Email: public.affairs@aku.edu | Website: www.aku.edu